

FILEID**INIFCB

IN
VO
; ;
42

```
1 0001 0 MODULE INIFCB (
2 0002 0 LANGUAGE (BLISS32),
3 0003 0 IDENT = 'V04-000'
4 0004 0 ) =
5 0005 1 BEGIN
6 0006 1
7 0007 1
8 0008 1 ****
9 0009 1 *
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27 0027 1 *
28 0028 1 *
29 0029 1 ****
30 0030 1
31 0031 1 ++
32 0032 1
33 0033 1 FACILITY: F11ACP Structure Level 1
34 0034 1
35 0035 1 ABSTRACT:
36 0036 1
37 0037 1 These routines create and initialize a file control block
38 0038 1 from the given file header.
39 0039 1
40 0040 1 ENVIRONMENT:
41 0041 1
42 0042 1 STARLET operating system, including privileged system services
43 0043 1 and internal exec routines. These routines must be called in
44 0044 1 kernel mode.
45 0045 1
46 0046 1
47 0047 1 --
48 0048 1
49 0049 1
50 0050 1 AUTHOR: Andrew C. Goldstein, CREATION DATE: 14-Dec-1976 16:48
51 0051 1
52 0052 1 MODIFIED BY:
53 0053 1
54 0054 1 V03-002 LMP0221 L. Mark Pilant, 31-Mar-1984 12:16
55 0055 1 Add support for an ORB in the FCB.
56 0056 1
57 0057 1 V03-001 STJ3108 Steven T. Jeffreys, 24-Jun-1983
```

: 58 0058 1 | fix link truncation error.
: 59 0059 1 |
: 60 0060 1 | A0100 ACG0001 Andrew C. Goldstein, 10-Oct-1978 20:01
: 61 0061 1 | Previous revision history moved to F11A.REV
: 62 0062 1 |
: 63 0063 1 | **
: 64 0064 1 |
: 65 0065 1 |
: 66 0066 1 LIBRARY 'SYSSLIBRARY:LIB:L32';
: 67 0067 1 REQUIRE 'SRC\$:FCPDEF.B32';

```
: 69 0382 1 GLOBAL ROUTINE INIT_FCB (FCB, HEADER) : NOVALUE =
: 70 0383 1
: 71 0384 1 ++
: 72 0385 1
: 73 0386 1 FUNCTIONAL DESCRIPTION:
: 74 0387 1
: 75 0388 1 This routine initializes the given FCB according to the given
: 76 0389 1 file header.
: 77 0390 1
: 78 0391 1 CALLING SEQUENCE:
: 79 0392 1 INIT_FCB (ARG1, ARG2)
: 80 0393 1
: 81 0394 1 INPUT PARAMETERS:
: 82 0395 1 ARG1: FCB address
: 83 0396 1 ARG2: header address
: 84 0397 1
: 85 0398 1 IMPLICIT INPUTS:
: 86 0399 1 HEADER_LBN contains LBN of header block
: 87 0400 1
: 88 0401 1 OUTPUT PARAMETERS:
: 89 0402 1 NONE
: 90 0403 1
: 91 0404 1 IMPLICIT OUTPUTS:
: 92 0405 1 NONE
: 93 0406 1
: 94 0407 1 ROUTINE VALUE:
: 95 0408 1 NONE
: 96 0409 1
: 97 0410 1 SIDE EFFECTS:
: 98 0411 1 FCB initialized
: 99 0412 1
: 100 0413 1 !--
: 101 0414 1
: 102 0415 2 BEGIN
: 103 0416 2
: 104 0417 2 MAP
: 105 0418 2 FCB : REF BBLOCK, | FCB argument
: 106 0419 2 HEADER : REF BBLOCK; | file header arg
: 107 0420 2
: 108 0421 2 LOCAL
: 109 0422 2 FCB_ORB : REF BBLOCK, | Address of the ORB within the FCB
: 110 0423 2 MAP_AREA : REF BBLOCK, | pointer to header map area
: 111 0424 2 MAP_COUNT, : REF BBLOCK, | count of map pointers
: 112 0425 2 MAP_POINTER : REF BBLOCK, | pointer to scan map
: 113 0426 2 FILESIZE; : REF BBLOCK, | size of file in blocks
: 114 0427 2
: 115 0428 2 EXTERNAL
: 116 0429 2 HEADER_LBN : ADDRESSING_MODE (GENERAL); ! LBN of file header
: 117 0430 2
: 118 0431 2 ! Set up the ORB address.
: 119 0432 2
: 120 0433 2 FCB_ORB = FCB[FCB$R_ORB];
: 121 0434 2
: 122 0435 2 ! Get the known constants and the simple stuff from the file header
: 123 0436 2 (i.e., header LBN, file ID, starting VBN, file owner and file protection).
: 124 0437 2
: 125 0438 2
```

```

: 126
: 127 0439 2 FCB[FCBSL_HDLBN] = .HEADER_LBN;
: 128 0440 2 FCB[FCBSW_FID_NUM] = .HEADER[FH1$W_FID_NUM];
: 129 0441 2 FCB[FCBSW_FID_SEQ] = .HEADER[FH1$W_FID_SEQ];
: 130 0442 2 FCB_ORB[ORB$W_UICMEMBER] = .HEADER[FH1$B_UICMEMBER];
: 131 0443 2 FCB_ORB[ORB$W_UICGROUP] = .HEADER[FH1$B_UICGROUP];
: 132 0444 2 FCB_ORB[ORB$V_PROT 16] = 1;
: 133 0445 2 FCB_ORB[ORB$W_PROT] = .HEADER[FH1$W_FILEPROT];
: 134 0446 2 IF .HEADER[FH1$V_SPOOL] THEN FCB[FCBSV_SPOOL] = 1;
: 135 0447 2 FCB[FCBSL_EFBLK] = ROT (.BBLOCK[HEADER[FH1$W_RECATTR], FAT$L_EFBLK], 16);
: 136 0448 2 IF .FCB[FCBSL_EFBLK] NEQ 0
: 137 0449 2 AND .BBLOCK[HEADER[FH1$W_RECATTR], FAT$W_FFBYTE] EQ 0
: 138 0450 2 THEN FCB[FCBSL_EFBLK] = .FCB[FCBSL_EFBLK] - 1;
: 139 0451 2
: 140 0452 2 ! Now scan the map area. Get the starting LBN if the file is contiguous
: 141 0453 2 and count up the file size from the retrieval pointers.
: 142 0454 2
: 143 0455 2
: 144 0456 2 MAP_AREA = .HEADER + .HEADER[FH1$B_MPOFFSET]*2;
: 145 0457 2 MAP_POINTER = MAP_AREA + FM1$C_POINTERS;
: 146 0458 2 FCB[FCBSW_SEGN] = .MAP_AREA[FM1$B_EX_SEGNUM];
: 147 0459 2
: 148 0460 2 FCB[FCBSL_STLBN] = 0; ! assume non-contiguous file
: 149 0461 2 IF .HEADER[FH1$V_CONFIG]
: 150 0462 2 THEN
: 151 0463 3 BEGIN
: 152 0464 3 FCB[FCBSL_STLBN] = .MAP_POINTER[FM1$W_LOWLBN]; ! get low order LBN
: 153 0465 3 (FCB[FCBSL_STLBN])<16,85 = .MAP_POINTER[FM1$B_HIGHLBN]; ! and high order
: 154 0466 2 END;
: 155 0467 2
: 156 0468 2 FILESIZE = 0;
: 157 0469 2 DECR MAP COUNT FROM .MAP_AREA[FM1$B_INUSE]/2 TO 1 DO
: 158 0470 3 BEGIN
: 159 0471 3 FILESIZE = .FILESIZE + .MAP_POINTER[FM1$B_COUNT] + 1;
: 160 0472 3 MAP_POINTER = .MAP_POINTER + 4;
: 161 0473 2 END;
: 162 0474 2 FCB[FCBSL_FILESIZE] = .FILESIZE;
: 163 0475 2
: 164 0476 2 IF .FCB[FCBSL_EFBLK] GTR .FILESIZE
: 165 0477 2 THEN FCB[FCBSL_EFBLK] = .FILESIZE;
: 166 0478 2
: 167 0479 1 END; ! end of routine INIT_FCB

```

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.TITLE INIFCB
.IDENT \V04-000\
.EXTRN HEADER_LBN
.PSECT $CODE$,NOWRT,2

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| | | | | | | |
|--|--|--|--|--|-----------------------------------|--------|
| | | | | | .ENTRY INIT_FCB, Save R2,R3,R4,R5 | : 0382 |
| | | | | | MOVL FCB, R3 | : 0433 |
| | | | | | MOVAB 88(R3), FCB_ORB | : 0439 |
| | | | | | MOVL HEADER_LBN, -52(R3) | : 0440 |
| | | | | | MOVL HEADER, R2 | : 0442 |
| | | | | | MOVL 2(R2), 36(R3) | |
| | | | | | MOVZBW 8(R2), (FCB_ORB) | |

| | | | | | | | | |
|----|----------------|----------------|--|--|--|---|---|--|
| 04 | 02 08 18 0D 22 | A0 A0 A0 A2 A3 | 09 01 0A 04 10 3C 16 | A2 83 A2 80 E1 0002D 9E 00036 10 9C A3 9E 0003A 13 0003F A2 B5 00041 02 12 65 D7 00046 A2 9A 00048 6240 3E 0004C A1 9E 00050 61 9B 00054 A3 D4 00058 A2 95 0005B 09 18 0005E A0 3C 00060 60 90 00065 D4 00069 A1 9A 0006B C6 0006F D6 00072 11 00074 A0 9A 00076 A142 9E 0007A C0 0007F F5 00082 D0 00085 D1 00089 15 0008C D0 0008E 00091 | 0001F 00024 00028 0002D 00032 00036 1\$ 0003A 0003F 00041 00044 00046 00048 2\$ 0004C 00050 00054 00058 0005B 0005E 00060 00065 00069 3\$ 0006B 0006F 00072 00074 00076 4\$ 0007A 0007F 00082 00085 00089 0008C 0008E 6\$ | MOVZBW BISB2 MOVW BBC BISB2 MOVAB ROTL BQL TS W BNE DECL MOVZE. MOVAW MOVAB MOVZBW CLRL TSTB BGEQ MOVZWL MOVB CLRL DIVL2 INCL BRB MOVZBL MOVAB ADDL2 SOBGTR MOVL CMPL BLEQ MOVL RET | 9(R2) #1, 11(R2) 10(R2), 24(R2) #4, 13(R2) 1\$ #16, 34(R3) 60(R3), R5 #16, 22(R2), (R5) 2\$ 26(R2) 2\$ (R5) 1(R2), R0 (R2)[R0], MAP AREA 10(R1), MAP_POINTER (MAP AREA), 42(R3) ;8(R3) 12(R2) 3\$ 2(MAP_POINTER), 48(R3) (MAP_POINTER), 50(R3) FILESIZE 8(MAP AREA), R4 #2, R4 MAP_COUNT 5\$ 1(MAP_POINTER), R1 1(R1)[FILESIZE], FILESIZE #4, MAP_POINTER MAP COUNT, 4\$ FILESIZE, 56(R3) (R5), FILESIZE 6\$ FILESIZE, (R5) | : 0443 : 0444 : 0445 : 0446 : 0447 : 0448 : 0449 : 0450 : 0456 : 0457 : 0458 : 0460 : 0461 : 0464 : 0465 : 0468 : 0469 : 0471 : 0472 : 0469 : 0474 : 0476 : 0477 : 0479 |
| 65 | 2A | A2 | 50 51 50 51 30 0C 30 32 54 54 51 52 50 52 38 52 65 | 6240 0A 61 30 09 02 02 60 52 08 02 01 01 A142 04 54 52 03 52 04 | 3E 0004C A1 9E 00050 61 9B 00054 A3 D4 00058 A2 95 0005B 09 18 0005E A0 3C 00060 60 90 00065 D4 00069 A1 9A 0006B C6 0006F D6 00072 11 00074 A0 9A 00076 A142 9E 0007A C0 0007F F5 00082 D0 00085 D1 00089 15 0008C D0 0008E 00091 | 1\$ 0004C 00050 00054 00058 0005B 0005E 00060 00065 00069 3\$ 0006B 0006F 00072 00074 00076 4\$ 0007A 0007F 00082 00085 00089 0008C 0008E 6\$ | | |

: Routine Size: 146 bytes. Routine Base: \$CODE\$ + 0000

: 167 0480 1
: 168 0481 1 END
: 169 0482 0 ELUDOM

PSECT SUMMARY

| Name | Bytes | Attributes |
|----------|-------|--|
| \$CODE\$ | 146 | NOVEC,NOWRT, RD, EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2) |

Library Statistics

INIFCB
V04-000

F 14
16-Sep-1984 01:07:36
14-Sep-1984 12:29:38

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[F11A.SRC]INIFCB.B32;1 Page 6
(2)

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VO

File

| File | ----- Symbols ----- | Pages | Processing |
|-----------------------------------|--------------------------------|--------|------------|
| | Total Loaded Percent | Mapped | Time |
| \$_\$255\$DUA28:[SYSLIB]LIB.L32;1 | 18619 31 0 | 1000 | 00:01.9 |

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS\$:INIFCB/OBJ=OBJ\$:INIFCB MSRC\$:INIFCB/UPDATE=(ENH\$:INIFCB)

Size: 146 code + 0 data bytes

Run Time: 00:07.9

Elapsed Time: 00:26.3

Lines/CPU Min: 3642

Lexemes/CPU-Min: 17410

Memory Used: 110 pages

Compilation Complete

0165 AH-BT13A-SE
VAX/VMS V4.0

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